**Before The**

**Federal Communications Commission**

**Washington, D.C. 20554**

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| In the Matter of | ) | |
| | ) | |
| Restoring Internet Freedom | ) | WC Docket No. 17-108 |
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# REPLY COMMENTS OF BARBARA A. CHERRY, JULIEN MAILLAND, AND MATT PIERCE


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## I. INTRODUCTION

The title chosen by the Federal Communications Commission (Commission) for its Notice of Proposed Rulemaking (NPRM) in WC Docket No. 17-108 reveals from the start that the NPRM is little more than a political document pursuing an ideological agenda rather than a well-reasoned legal analysis objectively applying the facts as required by the Administrative Procedures Act.

By titling its NPRM "In The Matter of Restoring Internet Freedom" the Commission is using rhetoric to suggest the existing *2015 Open Internet Order*[1] has somehow diminished freedom on the Internet and frames the issue in a way that seeks to portray opponents of the NPRM as opponents of a free Internet. In so doing, the Commission uses the same rhetorical tool as the broadband Internet service providers and their industry trade associations, which is to confuse the public and suggest that they are the real supporters of an "open internet."[2] They are not. This use of doublespeak masks the true outcome of the Commission's proposal if it is adopted – Internet Service Providers (ISPs) will once again be free to unfairly discriminate against data moving across their networks.

To support its false narrative of restoring Internet freedom the Commission uses the technique of substituting "alternative facts" for real facts, a technique that is becoming commonplace in Washington, D.C. The NPRM distorts the regulatory history of common carriage and Title II regulation, misrepresents

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[1] *In the Matter of Protecting and Promoting the Open Internet*, WC Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd 5601 (2015) ("*2015 Open Internet Order"*).

[2] *See e.g.* "AT&T supports an open Internet, as do essentially all broadband ISPs," *Comments of AT&T Services Inc.*, WC Docket No. 17-108, p.1; *Comments of the NCTA – The Internet & Television Association*, WC Docket No. 17-108, p. 54, footnote 215, citing NCTA, *Reaffirming Our Commitment to an Open Internet*, Platform (May 17, 2017), https://www.ncta.com/platform/public-policy/reaffirming-our-commitment-to-an-open-internet/; "Our broadband provider members have long been committed to delivering to their customers an open internet that meets consumer expectations," *Comments of USTELECOM Association*, WC Docket No. 17-108, p.ii; "As we have explained before, Verizon is committed to an open Internet. We have invested billions of dollars in businesses that rely on the open Internet, which our customers view as essential and which is therefore a critical ingredient to our success," *Comments of Verizon*, WC Docket No. 17-108, p.5; "As noted above, Comcast has consistently supported open Internet protections and will continue to do so regardless of what legal framework is in place. The consensus principles of openness on which the Internet was built are a core component of Comcast's commitment to its customers. Indeed, Comcast has prominently and unequivocally reaffirmed—in advertisements, blog posts, and elsewhere—that 'we've always been committed to an open internet that gives you the freedom to be in charge of your own online experience. And that will not change,'" *Comments of Comcast Corporation*, WC Docket No. 17-108, pp.52-53, citing May 2017 Joint ISP Commitment.

Internet technology, and omits important Commission actions leading to the adoption of the *2015 Open Internet Order*.

The combination of rhetorical misrepresentations and alternative facts is exemplified by the Commission's changing the title of the *2015 Open Internet Order* to the "Title II Order." Throughout the NPRM, the *2015 Open Internet Order* is referred to as the *Title II Order*, which not only shows a lack of respect for the Commission itself and for the administrative process through which the *2015 Open Internet Order* came into being, but also a demonstrates a clear willingness to apply political spin to this proceeding. By refusing to use the proper name of the *2015 Open Internet Order*, the Commission sides with the lobbyists' alternative facts, which suggest that somehow repealing the Act will bring openness to the Internet, when doing so would in fact contribute to turning the Internet into gated communities by removing the openness enshrined into federal regulations by the *2015 Open Internet Order*. Throughout these Reply Comments, we will refer to the 2015 Order by its proper legal name, the *2015 Open Internet Order*.

The Commission has made a political decision to repeal the *2015 Open Internet Order* and is now using the NPRM to reverse-engineer history and the law to achieve its goal. It wants the public to believe classifying ISPs as Title II telecommunications service in the *2015 Open Internet Order* was somehow a radical departure from accepted policy when in fact the Commission's *Cable Modem Declaratory Ruling* (2002)[3] was the deviation from well-established law and policy.

The NPRM artfully shifts the burden of proof onto commenters to refute these distortions, mischaracterizations, and omissions when the burden for justifying repeal of the *2015 Open Internet Order* properly lies with the Commission itself. These Reply Comments accept that challenge. Using facts that should be familiar to the Commission and highlighting comments already filed in this proceeding, they will detail the statutes requiring ISPs to be classified as Title II telecommunication service, rebut the false claim that the *2015 Open Internet Order* is "utility-style regulation," explain the NPRM's misunderstanding of how the Internet technically functions, and identify when the real radical departure in Internet law and policy actually occurred. If the Commission truly wants to preserve Internet freedom and continue open Internet policies the ISPs profess to support, an honest assessment

[3] *In the Matter of Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, Internet Over Cable Declaratory Ruling, Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities*, GN Docket No. 00-185 & CS Docket No. 02-52, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd 4798 (2002) ("*Cable Modem Declaratory Ruling*").

of the record in this proceeding will leave it with no choice but to conclude the *2015 Open Internet Order* must be preserved.

## II. THE COMMISSION MUST APPLY THE APPROPRIATE LEGAL AND TECHNICAL FRAMEWORK

This 2017 NPRM contains such numerous errors and misleading statements that the analysis the Commission sets forth for consideration is fundamentally misframed and fatally flawed. Moreover, the errors, omissions and mischaracterizations are so frequent and intertwined, that it would be cumbersome to address each individually. Therefore, for clarity, the proper framework for legal classification of a service and its historical application, and its relationship to the FCC's forbearance authority are summarized here. Detailed examples of misleading rhetoric and incorrect assertions in the NPRM are included in Section IV of these Reply Comments.

At the outset, it is important to recognize that legal classification of a service as a "telecommunications service" or "information service" requires an integrated legal and technical analysis. The technical flaws in this pending NPRM have been addressed at length in the *Joint Comments of Internet Engineers, Pioneers, and Technologists*.[4] We support these comments and do not attempt to recite them here. The focus of our Reply Comments is to complement understanding of the technical flaws with that of the legal flaws in this NPRM. Thus, upon review of both sets of comments, the technical and legal flaws in the narrative of the Commission's NPRM are then clearly evident from juxtaposition with the proper legal framework and the resultant consequences flowing from the NPRM's analysis.

### A. Legal Classification of a Telecommunications Service is Based on Functionality

The classification of a service as a "telecommunications service" under the Communications Act of 1934, as amended by the Telecommunications Act of 1996, is based on the *functionality* of the service. In turn, this functionality consists of *technical functionality* and *commercial functionality*. The technical

[4] *Joint Comments of Internet Engineers, Pioneers, and Technologists on the Technical Flaws in the FCC's Notice of Proposed Rule-making and the Need for the Light-Touch, Bright-Line Rules from the Open Internet Order*, WC Docket No. 17-108. Barbara A. Cherry is also a signatory to these Joint Comments.

functionality consists of "telecommunications", that is, "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent or received" (47 U.S.C §153(43)). The commercial functionality consists of "the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public regardless of the facilities used" (47 U.S.C. §153(46)).

Cherry and Peha,[5] in their research paper filed with the FCC in the prior Open Internet proceeding, explained the FCC's authority in determining technical and commercial functionality, as applied to retail Internet access service. The analysis in Cherry and Peha was frequently cited and relied upon by the FCC in its *2015 Open Internet Order,* particularly as to the declaratory ruling that broadband Internet access service is a telecommunications service. The full paper is attached as an addendum to these Reply Comments, and some aspects of its analysis are highlighted here.

When a service is being offered with the technical and commercial functionalities of a telecommunications service, the legal classification of the service is *nondiscretionary*. "A particular system is a common carrier by virtue of its functions, rather than because it is declared to be so" (*NARUC I,* 525 F2d at 644). This mandatory classification based on the (technical and commercial) functionality of the service arose under the common law and is maintained under the statutory framework.

Yet, even if a service is currently offered as private carriage, the FCC has the discretion to *require* that it be provided on a common carriage basis.[6] The *Computer Inquiries* framework, further discussed below, is an example of the FCC exercising such discretion.

*Thus, the FCC's discretion as to service classification is asymmetric.* The FCC does not have the discretion to declassify a common carriage service that is functionally a telecommunications service, although it does have some discretion to require a service to be provided on a common carriage basis.

[5] Barbara A. Cherry & Jon M. Peha (December 22, 2014), "The Telecom Act of 1996 *Requires* the FCC to Classify Commercial Internet Access as a Telecommunications Service," *In the Matter of Protecting and Promoting the Open Internet,* GN Docket No. 14-28, Federal Communications Commission.

[6] "[I]t is clear that the Commission had discretion to require SMRS to serve all potential customers indifferently, thus making them common carriers within the meaning of the statute" *NARUC I,* F2d at 644, n. 76.

**B. Basic/Enhanced Service Dichotomy Under *Computer Inquir*ies Framework, Mirrored by Telecommunications/Information Service Dichotomy under the Telecommunications Act of 1996**

In the *Computer Inquiries* proceedings of the 1970's and 1980's,[7] the FCC developed a regulatory framework to address regulatory problems arising from the interplay of data processing and communications. This framework consisted of a basic/enhanced dichotomy for network services. A basic service is a pure transmission service offered by a common carrier of Title II, where the carrier no longer controls the use to which the transmission medium is put. Enhanced services are "[s]ervices, offered over common carrier transmission facilities used in interstate communications, which employ computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; provide the subscriber additional, different, or restructured information; or involve subscriber interaction with stored information."[8] Enhanced service is not a regulated service.

Essential to this regulatory framework is the FCC's recognition that common carrier transmission facilities are a critical input in the provision of data processing (wholesale market). For this reason, "[t]he *Computer Inquiries* decisions separated the market for information services from the underlying network infrastructure, and imposed firm non-discrimination rules for network access. This system prevented network owners from engaging in anticompetitive behavior and spurred the development and adoption of new technologies".[9] Thus, the FCC applied Title II common carriage regulation in *both* the retail and wholesale markets. Telephony common carriers must offer basic service under Title II to enhanced service providers (ESPs) and end users. *That is, basic service continues to be offered as a common carriage service in the retail market based on its functionality as a telecommunications service; and by rule the FCC imposed the requirement that basic service be offered under common carriage to ESPs in the wholesale market to prevent anticompetitive behavior.*

In its Report to Congress, known as the *Stevens Report* (1998),[10] the FCC concluded that the basic/enhanced dichotomy was retained in the definitions of "telecommunications",

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[7] A comprehensive discussion of the *Computer Inquiries* proceedings are provided in Robert Cannon (2003), "The Legacy of the Federal Communications Commission's Computer Inquiries," *Fed. Comm. L. J., 55(2),* 167-207.

[8] *Id.* At 185-186, quoting Miscellaneous Rules Relating to Common Carriers, 47 C.F.R. § 64.702(a) (2002).

[9] *2015 Open Internet Order*, 30 FCC Rcd 5601, 5619 (footnotes omitted).

[10] *Federal-State Joint Board on Universal Service,* CC Docket No. 96-45, Report to Congress, 13 FCC Rcd 11501 (1998) (*"Stevens Report"*).

"telecommunications service", and "information service" in the Telecommunications Act of 1996. The mutual exclusivity of the definitions of telecommunications and information services is also reflected in what is referred to as the telecommunications management exception in the definition of information service: "The term 'information service' means the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, *but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service*" (4 U.S.C. §153(20), emphasis added).

Importantly, the FCC emphasized a key assumption underlying the *Computer Inquiries* framework and the *Stevens Report* — that some entity must provide telecommunications to the information service provider (para. 69, fn. 138). Considering application of the statutory definitions to specific service offerings in the *Stevens Report*, the FCC stated that the same entity can be both a telecommunications service provider and an information service provider when it offers separate services. The FCC also stated that (at that time) most households used traditional telephone service to dial up their ISP, and the ISP was typically a separate entity from the telephone company (13 FCC Rcd at 11540, para. 81). For this reason, Internet access service was then typically provided as an information service (13 FCC Rcd at 11536, para. 73); however the FCC reserved judgment on whether entities that provided Internet access over their own network facilities were offering a separate telecommunications service (13 FCC Rcd at 11530, para. 60). In this regard, the Commission further noted that "the question may not always be straightforward whether, on the one hand, an entity is providing a single information service with communications and computing components, or, on the other hand is providing two distinct services, one of which is a telecommunications service" (13 FCC Rcd at 11530, para. 60). In a subsequent order, *Advanced Services Remand Order* (1999),[11] the FCC affirmed its conclusion that xDSL-based advanced services constitute telecommunications services.

Thus, under the *Computer Inquiries* framework and the FCC's initial consideration of the Telecommunications Act of 1996, the transmission component of Internet access service was required to be provided on a Title II common carriage basis to *both* end users (retail market) and non-facilities based ESPs/ISPs (wholesale market).

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[11] *Deployment of Wireline Services Offering Advanced Telecommunications Capability,* CC Docket No. 98-147, Order on Remand, 15 FCC Rcd 385, 388 para. 9 (1999) (*"Advanced Services Remand Order"*).

**C. Radical Departure from the Preexisting Framework in the early 2000's**

Radical departure from the preexisting framework began in FCC orders in 2002 and 2005 — not in the FCC's *Open Internet Order* (2015), as the 2017 NPRM claims. Rather, the *2015 Open Internet Order* restored a proper functionality approach to service classification from which the FCC had deviated in 2002 and 2005, and was necessary to enable sustainable open Internet rules given subsequent D.C. Circuit Court of Appeals rulings.

In its *Cable Modem Declaratory Ruling* (2002), the FCC addressed an unresolved issue: what is the statutory classification in those cases where the ISP (other than telephony companies) provides an information service over its own facilities? As for the relationship of the cable modem service provider to end users in the retail market, the FCC found that cable modem service providers currently do not make a stand-alone offering of transmission for a fee directly to the public, and thus the telecommunications component is not a separate telecommunications service to end users.

As for the relationship of cable operators to unaffiliated ISPs in the wholesale market, the FCC declined to impose *Computer II* requirements[12] on cable modem service providers to create stand-alone transmission service to ISPs and other information service providers on a tariffed basis. In addition, the FCC declined to impose the *Computer II* requirements even where cable companies also offer local exchange telecommunications service. The FCC stated that the core assumption underlying the *Computer Inquiries* is that the telephone network is the primary, if not exclusive, means through which information service providers can gain access to their customers (par. 44). Therefore, even if *Computer II* were to apply, the FCC waived on its own motion the requirements of *Computer II,* which it had the discretion to do if appropriate in the public interest; and further stated that cable operator's stand-alone telecommunications offering to unaffiliated ISPs would be private carriage.

As a result, under the *Cable Modem Declaratory Ruling,* cable companies did not provide the telecommunications, transmission component under Title II common carriage in *either* the retail or wholesale markets. Moreover, in justifying its refusal to exercise its discretion to require cable companies to provide telecommunications on a common carriage basis in the wholesale market, the FCC asserted that such a requirement would remain imposed on the telephony companies.

[12] *Amendment of Section 64.7-2 of the Commission's Rules and Regulations (Second Computer Inquiry),* Docket No. 20808, Final Decision, 77 FCC 2d 384 (1980) (*"Computer II"*).

In *NCTA v. Brand X* (2005),[13] a divided U.S. Supreme Court upheld the FCC's *Cable Modem Declaratory Ruling* based on *Chevron* deference[14] to an expert agency's interpretation of an ambiguous statute. The majority concluded that the FCC's construction of "offering" as used in the definition of "telecommunications service" was a reasonable policy choice to make under the *Chevron* doctrine. Although in a concurring opinion, Justice Breyer stated that he joined the majority because he believed the FCC's "decision falls within the scope of its statutorily delegated authority – *though perhaps just barely*" (545 U.S. at 1003, emphasis added).

As for the relationship of the cable modem provider to end users in the retail market, the Court affirmed classification of cable modem service as an integrated information service offering. "Seen from the consumer's point of view, the Commission concluded, cable modem service is not a telecommunications offering because the consumer uses the high-speed wire always in connection with the information-processing capabilities provided by Internet access, and because the transmission is a necessary component of Internet access" (545 U.S. at 988, citation omitted).

As for the wholesale market, the Court concluded that the Commission provided a reasoned explanation for treating cable modem service differently from DSL service. The traditional reason for *Computer II* common-carrier treatment of facilities-based carriers was that the telephone network was the primary, if not exclusive, means through which ISPs gain access to their customers. By contrast, substitute forms of Internet transmission now exist, and it is not arbitrary for the FCC to provide a fresh analysis of the problem as applied to the cable industry. The Court expressed "no view on how the Commission should, or lawfully may, classify DSL service" (545 U.S. at 1002).

However, the Court specifically declined to address an important issue raised by respondents — that the FCC's construction of the statute in its *Cable Modem Declaratory Ruling* would allow any communications provider to evade common-carrier regulation through bundling of transmission with information service.

> Respondents argue that the Commission's construction is unreasonable because it allows any communications provider to "evade" common-carrier regulation by the expedient of bundling information service with telecommunications…[A] telephone company could, for example, offer an information service like voice mail

[13] 545 U.S. 967 (2005).

[14] This judicial doctrine was established in *Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984).

> together with telephone service, thereby avoiding common-carrier regulation of its telephone service.
>
> We need not decide whether a construction that resulted in these consequences would be unreasonable because we do not believe that these results follow from the construction the Commission adopted. As we understand the *Declaratory Ruling*, the Commission did not say that any telecommunications service that is priced or bundled with an information service is automatically unregulated under Title II...
>
> This construction does not leave all information-service offerings exempt from mandatory Title II regulation. "It is plain," for example, that a local telephone company "cannot escape Title II regulation of its residential local exchange service simply by packaging that service with voice mail." … By contrast, the high-speed transmission used to provide cable modem service is a functionally integrated component of that service because it transmits data only in connection with the further processing of information and is necessary to provide Internet service. The Commission's construction therefore was more limited than respondents assume. (545 U.S. at 997-998, citation omitted).

Yet, after the Court's decision in *Brand X*, the FCC did indeed reverse course in a manner feared by respondents in *Brand X*. In its *Wireline Broadband Classification Order* (2005),[15] the FCC reclassified wireline broadband Internet access service (DSL) as an information service in *both* the retail and wholesale markets. In the retail market, the FCC found the transmission component of a facilities-based provider's offering of wireline broadband access service to be mere "telecommunications" and not a "telecommunications service". In the wholesale market, the FCC no longer required facilities-based wireline broadband Internet access providers to offer the transmission component as a stand-alone telecommunications service under Title II to ISPs. The FCC stated that the transmission component is a telecommunications service: (1) if the provider voluntarily undertakes to provide it as a telecommunications service; or (2) if the Commission mandates that it be offered as a telecommunications service. In the order, the FCC permitted (1) but did not require (2).

As a result of the 2002 and 2005 Orders, *no* facilities-based broadband Internet access service provider – whether a telephony or cable provider – was required to provide the transmission component of service on a common carriage basis in *either* the retail or wholesale markets. This state of affairs constituted a radical departure from the preexisting regulatory framework.

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[15] *In the Matter of Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities et al.*, CC Docket Nos. 02-33, 01-337, 95-20, 98-10, WC Dkt Nos. 04-242, 05-271, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853 (2005) ("*Wireline Broadband Classification Order*").

**D. Unenforceability of Open Internet Rules Under Information Service Classification**

When adopting the *Wireline Broadband Classification Order*, the FCC also issued an *Internet Policy Statement* (2005)[16] setting forth four Internet freedoms. However, such a policy statement is not legally enforceable. Moreover, while maintaining a Title I "information service" legal classification for broadband Internet access services, the FCC has twice sought to rely on section 706 authority[17] to impose obligations on broadband Internet service providers. However, such reliance has been laden with legal obstacles.

In *Comcast v. FCC* (2010),[18] the D.C. Circuit Court of Appeals held that the FCC failed to cite any statutory authority that would justify its order compelling a broadband provider, Comcast, to adhere to open network management practices. In particular, the D.C Circuit observed that the FCC could not rely on section 706 at that time because the Commission had previously determined, in the still-binding *Advanced Services Order*, that the provision does not constitute an independent grant of authority.

Following *Comcast v. FCC*, the Commission issued a Notice of Inquiry, *Broadband Classification NOI*,[19] that sought comments on the appropriate approach to broadband policy. This NOI sought comments as to various approaches, including continuing information service classification and reliance on ancillary authority, or classification as a telecommunications service and use of forbearance authority.

In its *2010 Open Internet Order*,[20] the FCC continued service classification of broadband as an information service but changed its understanding of section 706, concluding that section 706(a) does

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[16] *In the Matter of Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities et al.*, CC Docket Nos. 02-33, 01-337, 95-20, 98-10, GN Docket No. 00-185, CS Docket No. 02-52, Policy Statement, 20 FCC Rcd 14986 (2005) ("*Internet Policy Statement*").

[17] Section 706(a) provides: "The Commission and each State commission with regulatory jurisdiction over telecommunications services shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms) by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment."

[18] 600 F.3d 642 (D.C. Cir. 2010).

[19] *In the Matter of Framework for Broadband Internet Service*, GN Docket no. 10-127 (2010) ("*Broadband Classification NOI*").

[20] *Preserving the Open Internet*, GN Dkt. No. 09-191, WC Dkt. No. 07-52, Report and Order, 25 FCC Rcd 17905 (2010), *aff'd in part, vacated and remanded in part sub nom. Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014) ("*2010 Open Internet Order*").

constitute an affirmative grant of regulatory authority. In *Verizon v. FCC* (2014),[21] the D.C. Circuit Court found that "the Commission has offered a reasoned explanation for its changed understanding of section 706(a)" (740 F.3d at 636), and that this understanding was a reasonable interpretation of an ambiguous statute under the *Chevron* doctrine of deference to agency interpretation. Yet, notwithstanding *some* statutory authority to act under section 706, the court emphasized that the *scope* of FCC statutory authority under section 706 is narrower than that provided under Title II. As a starting point, the court found:

> We think it obvious that the Commission would violate the Communications Act were it to regulate broadband providers as common carriers. Given the Commission's still-binding decision to classify broadband providers not as providers of "telecommunications services" but instead as providers of "information services," such treatment would run afoul of section 153(51): "A telecommunications carrier shall be treated as a common carrier under this [Act] only to the extent that it is engaged in providing telecommunications services." (740 F.3d at 650, citations omitted).

The court stated that "[t]he only remaining question, then, is whether the *Open Internet Order's* rules has so limited broadband providers' control over edge providers' transmission that the regulations constitute common carriage *per se*" (740 F.3d at 655). The court found that the disclosure rules were permissible under section 706, but vacated the anti-discrimination and anti-blocking rules because they constituted common carriage *per se*. Thus, exercise of FCC authority under section 706, *so long as broadband providers are considered to not provide a telecommunications service*, is constrained to prohibit the imposition of common carriage obligations.

**E. Restoration of the Appropriate Service Classification Under the *2015 Open Internet Order***

Such was the state of affairs when the D.C. Circuit Court of Appeals remanded, in part, the FCC's *2010 Open Internet Order*. In response, the FCC adopted a new *Open Internet Access NPRM*,[22] the culmination of which was the FCC's *2015 Open Internet Order*, which was affirmed by the D.C. Circuit Court of Appeals in *US Telecom v. FCC* (2016).[23] In the context of the historical background described above, it is now clear what the FCC did – and did not – do in the *2015 Open Internet Order*.

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[21] 740 F.3d 623 (D.C. Cir. 2014).

[22] *In the Matter of Protecting and Promoting the Open Internet*, GN Dkt. No. 14-28, Notice of Proposed Rulemaking, 29 FCC Rcd. 5561 (2014) ("*Open Internet Access NPRM*").

[23] *U.S. Telecom v. FCC*, 825 F.3d 674 (D.C. Cir. 2016). Rehearing en banc has also been denied, *U.S. Telecom v. FCC*, 2017 WL 1541517 (2017).

**1. Service classification**

As for the retail market, the D. C. Circuit Court observed "the Commission concluded that consumers perceive broadband service both as a standalone offering and as providing telecommunications" (*U.S. Telecom v. FCC*, 825 F.3d at 697, citation omitted). "The Commission grounded that determination in record evidence that 'broadband Internet access service is marketed today primarily as a conduit for the transmission of data across the Internet'" (825 F.3d at 699, citation omitted). Furthermore, "[i]n concluding that broadband qualifies as a telecommunications service the Commission explained that although broadband often relies on certain information services to transmit content to end users, these services 'do not turn broadband Internet access service into a functionally integrated information service' because 'they fall within the telecommunications system management exception'" (825 F.3d at 699, citation omitted).

*Thus, based on the technical and commercial functionality of the service from a customer's perspective, the FCC made the nondiscretionary finding that broadband Internet access service is a telecommunications service.* In so ruling, the FCC *restored* the applicability of the preexisting framework of Title II common carriage classification in the retail market. In addition, it provided a *jurisdictionally sustainable basis* for imposing Open Internet Rules beyond the disclosure rules adopted in the *2010 Open Internet Order* that were upheld in *Verizon v. FCC.*

**2. Regulatory framework under Title II based on forbearance and rulemaking authorities**

Only after having made the nondiscretionary finding that broadband Internet access service is a telecommunications service based on the functionality of the service in the retail market does the FCC turn to consideration of the appropriate regulatory framework under Title II. It is only at this juncture that considerations of competition and anticompetitive behavior are relevant. In this regard, the FCC determines whether forbearance from any regulations or provisions of the Communications Act is required. The FCC also may exercise its rulemaking authority to impose new or modify existing regulations. As explained below, the regulatory framework established in the *2015 Open Internet Order* the FCC for broadband Internet access service consists of two parts: one is applicable to the mass-market retail market, and the other to interconnection arrangements of Internet traffic exchange.

As for forbearance, Section 10(a) of the Communications Act, codified as 47 U.S.C. §160, directs the FCC to forbear from applying any regulation or provision of the Act to a telecommunications carrier or telecommunications service, in any or some of its geographic market, upon its determination that:

> (1) enforcement of such regulation or provision is not necessary to ensure that the charges, practices, classifications, or regulations by, for, or in conjunction with that telecommunications carrier of telecommunications service are just and reasonable and are not unjustly or unreasonably discriminatory;
> (2) enforcement of such regulation or provision is not necessary for the protection of the consumers; and
> (3) forbearance from applying such provision or regulation is consistent with the public interest.

Furthermore, in making the determination under these criteria, section 10(b) provides that the FCC "shall consider whether forbearance from enforcing the provision or regulation will promote competitive market conditions, including the extent to which forbearance will enhance competition among providers of telecommunications services." Thus, consideration of competitive market conditions is a statutory requirement for determinations of forbearance.

To understand the scope of forbearance, it is essential to recognize that sections 201 and 202 of the Communications Act codify basic duties of common carriers. These duties include the following obligations that originated under the common law: the carrier shall provide service upon reasonable request; under charges, terms and conditions that are just and reasonable; and without making any unjust or unreasonable discrimination, or giving any undue or unreasonable preference or advantage to any particular person, class of persons, or locality.[24] Importantly, the criteria in sections 10(a)(1) and (2) (above) state that the Commission must determine that *enforcement of such regulation or provision is not necessary* to ensure that charges, practices, classification or regulations related to telecommunications carriers or services are just and reasonable and not unjustly or unreasonably discriminatory, or to protect consumers. In other words, *basic obligations found in sections 201 and 202 must still be met*: the charges, practices, classification or regulations related to telecommunications carriers or services must still be just and reasonable and not unjustly or unreasonably discriminatory;

[24] These common law obligations of common carriers arose independent of market structure, and are unrelated to the existence of monopoly. *See* Barbara A. Cherry (2012), "Challenges of Institutional Governance for Network Infrastructures: Reinstitution and Expansion of Legal Innovations," in G. Faulhaber, G. Madden, & J. Petchy (eds.), *Regulation and the Economic Performance of Communication and Information Networks* (Northhampton MA: Edward Elgar Publishing), pp. 1-38.

and the customers are still to be protected. *It is the enforcement mechanism for ensuring that such obligations are met that changes* — refraining from the direct agency enforcement of regulations or provisions in the Communications Act — *if the requisite determinations are made*. Moreover, the enforcement mechanism that may be sufficient, upon FCC determination, to replace direct agency enforcement is competition. This is clear from the language of sections 10(a)(3) and 10(b). Section 10(a)(3) states that forbearance must be determined to be consistent with the public interest; and section 10(b) states that determination that forbearance will promote competition among telecommunications providers is a sufficient basis for find that section 10(a)(3) is met. Therefore, under forbearance the fundamental obligations of common carriers still must be met, but the enforcement mechanism is changed from direct agency regulation to competition only when competition is deemed sufficient for that purpose.

The regulatory framework that the FCC established in the *2015 Open Internet Order* is based on the adoption of rules supported by its legal authority under Title II to regulate telecommunications services as well as the conducting of forbearance analysis under section 10. Furthermore, considerations of competition and anticompetitive incentives informed the FCC's analysis in both respects.

For applicability to the mass-market retail provision of broadband Internet access service to consumers, the FCC adopted new rules. The FCC determined that preservation of Internet openness required new conduct-based rules in order to address the economic incentives of broadband providers that "have the ability to act as gatekeepers even in the absence of 'the sort of market concentration that would enable them to impose substantial price increases on end users'" (30 FCC Rcd at 5633, footnote omitted). Based on analysis of the broadband providers' economic incentives and technical ability to effectuate them, and informed by past instances of abuse, the FCC adopted clear, bright line rules of no throttling, no blocking, and no paid prioritization. The FCC also adopted a general, no unreasonable interference or unreasonable disadvantage standard for Internet conduct, under which the FCC could prohibit practices on a case-by-case basis.

Simultaneously, for the provision of mass-market retail service, the FCC exercised its "forbearance authority to forbear from 30 statutory provisions and render over 700 codified rules inapplicable, to establish a light-touch regulatory framework tailored to preserving those provisions that advance our goals of more, better, and open broadband. We thus forbear from the vast majority of rules

adopted under Title II" (30 FCC Rcd at 5616).[25] Importantly, the FCC did not "forbear from sections 201, 202, or 208 (or from related enforcement provisions), which are necessary to support adoption of our open Internet rules" (30 FCC Rcd at 5616, footnote omitted).

The FCC adopted a different regulatory framework, however, for interconnection arrangements related to Internet traffic exchange. The FCC observed that "[t]he definition for broadband Internet access service includes the exchange of Internet traffic by an edge provider or an intermediary with the broadband provider's network. We note that anticompetitive and discriminatory practices in this portion of broadband Internet access service can have a deleterious effect on the open Internet, and therefore retain targeted authority to protect against such practices through sections 201, 202, and 2018 of the Act (and related enforcement provisions), but will forbear from a majority of the other provisions of the Act. Thus, we conclude that, at this time, application of the no-unreasonable interference/disadvantage standard and the prohibitions on blocking, throttling, and paid prioritization to the Internet traffic exchange arrangements is not warranted" (30 FCC Rcd at 5686-5687, footnotes omitted). Therefore, the new Open Internet Rules created for the mass-market retail service do not apply to the interconnection arrangements of Internet traffic exchange. Instead, through retention of targeted authority under Title II, the FCC will address issues of Internet traffic exchange agreements on a case-by-case basis. This case-by-case approach will provide "a regulatory backstop prohibiting common carriers from engaging in unjust and unreasonable practices" and "provide the Commission with greater experience" in this market (30 FCC Rcd at 5693).

### E. What the *2015 Open Internet Order Did <u>Not</u> Do*

Given an understanding of the proper legal framework for service classification and its historical application, it is clear what the FCC did *not* do in its *2015 Open Internet Order*. It is thus also clear how this 2017 NPRM mischaracterizes what was done in the *2015 Open Internet Order* and offers a technically and legally flawed analysis for reversing the *2015 Open Internet Order*.

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[25] However, as for those incumbent local exchange carriers or other common carriers that chose to offer Internet transmission services as telecommunications services subject to the full range of Title II requirements pursuant to the *Wireline Broadband Classification Order* (2005), the FCC's forbearance with respect to broadband Internet access service under the *2015 Open Internet Order* does not apply to such services (30 FCC Rcd at 5819). Such carriers sought this result in order to continue to remain subject to pre-existing Title II rights and obligations, such as permissive – rather than mandatory – detariffing.

The FCC did *not* exercise discretion in determining whether broadband Internet access service offered by providers constitutes a telecommunications service, rather it conducted a factual analysis of the technical and commercial functionality of the service as required under statutory construction which is consistent with common law origins of the legal status of common carriers. Moreover, for purposes of such nondiscretionary service classification based on functionality, the FCC did not consider issues such as market power, market structure, or monopoly.

The FCC did *not* exercise its discretion to require the offering of service on a common carriage basis that is not already being offered on a common carriage basis, as it had done in the *Computer Inquiries* proceedings. "In the event that an ISP nonetheless were to choose to hold itself out to consumers as offering them an edited service rather than indiscriminate internet access—despite the potential effect on its subscriber base—it could then bring itself outside the rule. In that sense, the rule could be characterized as 'voluntary'" (*U.S. Telecom v. FCC,* slip op. at 17 (2017) (concurring opinion of J. Srinivasan, joined by J. Tatel)).

After finding that broadband Internet access service is being offered as a telecommunications service, the FCC did establish a regulatory framework based on the exercise of its rulemaking and forbearance authorities. At this stage, issues of competitive and anticompetitive behavior are relevant. The FCC adopted new Open Internet Rules and exercised forbearance from numerous statutory provisions and rules for the provision of mass-market retail broadband Internet access service. It did not apply these new rules, but exercised a different scope of forbearance and retained jurisdiction to address issues on a case-by-case basis for Internet exchange traffic.

Finally, the framework the FCC established is one of common carriage under Title II. The regulatory framework is *not* one of public utility regulation, as asserted in the 2017 NPRM. Unfortunately, such an assertion conflates two separate bodies of law, common carriage and public utility. As explained in Cherry (2015),[26] such conflation of common carriage and public utility law contributes to a false monopoly theory argument and misframes network neutrality inquiry. Some basic aspects of the conflation are summarized here.

On the one hand, common carriage is a legal classification based on the functionality of the service: briefly, the technical functionality of being a conduit, and the commercial functionality of

[26] Barbara A. Cherry, "Technology Transitions Within Telecommunications Networks: Lessons from U.S. vs. Canadian Policy Experimentation Under Federalism," 39 *Telecommunications Policy* 463-485 (2015).

holding oneself out to serve the public. Importantly, this legal classification has no relationship to the number of providers, much less monopoly. On the other hand, public utility is a legal status based on state law. The status arises from the grant of a franchise by government to the entity (public utility) to provide some service to the public. Franchises may be, but also may not be, exclusive.

Historically, some entities have been common carriers only, some have been public utilities only, and some have been both. Historically, telephony companies have been both — but the federal law (i.e. FCC jurisdiction) is based solely on the common carriage legal status.

Unfortunately, by treating the open Internet issue before the FCC as one based on public utility law, the Commission is evoking perceptions people have about public utilities - that, in turn, are often flawed. One such perception is people's association of public utilities with monopolies (even though public utilities need not be monopolies). Moreover, this misperception then becomes conflated with common carriage. As a result, debate is misframed based on a false monopoly theory argument — that all regulation comes from being a monopoly (or lack of competition), so if there's no more monopoly then there is no reason to regulate anymore. Hence, if common carriage is based on monopoly — which many people tend to conclude based on a false equivalence with public utility status - and there's no more monopoly, then there is no need for common carriage classification. This false monopoly theory misperception also underlies the tendency to argue that issues of competition or anticompetitive conduct should be considered for purposes of legal classification of service under the required nondiscretionary, functional analysis. For reasons explained in Cherry (2015), the confusion caused by conflation of common carriage and public utility law is more easily corrected in Canada than the U.S.

By repeating this false equivalency with public utility regulation in this NPRM, the Commission seeks to brand the Open Internet Order as public utility-style regulation to conjure-up images in the public mind of outmoded regulations fostering stodgy monopolies that fail to innovate or keep up with consumer demands. It impermissibly places public relations and political spin above factual analysis to reach an ideological goal. The Administrative Procedures Act demands more of the Commission.

## III. THE NPRM WOULD LEAD TO ABSURD LEGAL, TECHNOLOGICAL, AND ECONOMIC RESULTS

We agree with the *Joint Comments of Internet Engineers, Pioneers, and Technologists* as to how the technical flaws and factual inaccuracies in the 2017 NPRM distort appropriate analysis of the

functionality of broadband Internet access service. The *Joint Comments* explain how the NPRM's inaccurate portrayal of what services ISPs offer and how the technology underlying the Internet works, lead to absurd conclusions. For example,

> Saying that Internet users do not specify the points to which information is sent online is like saying that telephone users do not specify the phone they want their call sent to when they dial a phone number. As explained in Section I.D.2, both the Internet and the telephone network make use of dynamic routing based on the architecture of the network. Further, in both networks the customer is often unaware of where the endpoint is actually located—particularly in mobile networks, where a phone customer may have absolutely no way of knowing, a priori, even what country a mobile phone might be located in.
>
> Thus, this interpretation of what it means to transmit information between or among points specified by the user, i.e. that the user must explicitly tell the network what routing decisions to take, has no basis in reality. Taken to its logical conclusion, it would require the FCC to similarly decide that telephone services are also not telecommunications services—an obviously absurd conclusion. (*Joint Comments of Internet Engineers, Pioneers, and Technologists*, pp. 25-26)

We also agree with FCC Commissioner Clyburn's critique that the NPRM's legal analysis, analogously, leads to absurd results:

> It is clear that this majority is willing to read the definition of telecommunications service out of the Communications Act altogether—not only for broadband, but for all consumer telecommunications services. *Show me one modern consumer service that the majority will unequivocally say is a telecommunications service and its provider should be regulated as a common carrier.*
>
> …[U]nder the majority's proposed reading of the definition of information service, there is no provider of telecommunications whatsoever. (FCC 17-60, pp. 69-70, emphasis in original).

Moreover, Commissioner Clyburn observes that under the majority's logic, telegraphy and telephony would have been information services, even though they were always considered Title II services. The majority's logic also creates a construction of the statutory definition in the Communications Act that differs from that upheld by the U.S. Supreme Court in *NCTA v. Brand X*, as discussed in section II.C of these Reply comments.

Finally, we agree with Commission Clyburn that the flawed analysis in this NPRM has been intentionally undertaken by the majority to pursue deregulation:

> How can we give meaning to all statutory language if we decide to read not only a word or phrase, but an entire Title out of the Communications Act? Rather than recognizing this and having an honest conversation about the underlying technology and consumer broadband market, statutory definitions are twisted to fit a deregulatory

> bent. But, by declining to classify VoIP, messaging, VoLTE and other services, the majority chips away at Congressionally–delegated authority service-by-service. The end-game is this: get the FCC out of the business of regulating in the public interest. This reclassification is but a step towards that goal. (FCC 17-60, p. 69)

The majority's true intention is belied by its gratuitous proposal that section 706 be reinterpreted as merely hortatory rather than a grant of independent authority to the FCC. Given the previous litigation over section 706 authority, briefly referred to in section II.D of these Reply Comments, "[w]alking that interpretation back—particularly in a world where we do not have Title II—is a sure death sentence for any open internet rules" (Clyburn's Dissenting Statement, FCC 17-60, p. 72).

There is another consequence that would follow from the NPRM's implementation, one that would fundamentally alter the nature of the internet and put at risk what has made it great, that is, the capacity to innovate from the edges of the network. After the federal government funded what would become "the Internet," private innovation flourished because the designers of the network, infused with the public interest, made the decision to decentralize power to the edges of the networks.

From a technological standpoint, this is called the "end-to-end" principle:

> In order for a network to be general purpose, the nodes that make up the interior of the network should not assume that end points will have a specific goal when using the network or that they will use specific protocols; instead, application-specific features should only reside in the devices that connect to the network at its edge. (*Joint Comments of Internet Engineers, Pioneers, and Technologists*, p. 8, citing J.H. Saltzer, D.P. Reed & D.D. Clark, "End-to-End Arguments in System Design," 2 *ACM Transactions on Computer Systems* 277 (1984).)

From an innovation standpoint, it is the end-to-end principle that has enabled innovation to flourish over the Internet, because, unlike with other networks such as Prestel in the UK or Minitel in France, creative powers were not at all controlled by the operator of the network itself.[27] With the Internet, "[t]he interior of the network, made up of the communications links (i.e. the physical cables) and the routers that connect them, originally did very little processing or modification of the packets they handled (*Joint Comments of Internet Engineers, Pioneers, and Technologists*, p.8).

As a result:

> Given the end-to-end principle, any service that appears on the Internet will be available to ISP customers. However, the end-to-end principle depends on

[27] Julien Mailland and Kevin Driscoll, *Minitel: Welcome to the Internet* (MIT Press, 2017), pp.73-93.

> noninterference by ISPs. If the FCC reclassifies BIAS providers as information services and is unable to enforce light-touch rules against ISP interference with customer traffic, many new capabilities the FCC has not envisioned will never come to be. (*Joint Comments of Internet Engineers, Pioneers, and Technologists*, p. 21)

In other words, implementation of the NPRM would create a fundamental shift in the way the Internet was designed and operated for the greater part of the past 48 years: it would shift the power over creation and innovation from the edges of the network, where innovation and value creation lies, to the center of the network. At the center of the network are the ISPs. Under the law, corporations such as ISPs have a fiduciary duty to maximize shareholder value. Shareholder value is maximized when ISPs violate net neutrality because it enables them to extract more revenue from the data that flows through their pipes. This, in contrast, impairs value creation at the edges of the networks. This value creation serves the public interest. It is therefore indisputable that the interests of the ISPs do not align with that of the public.

As early as the 1990s, Harvard Law Professor Lawrence Lessig pointed out in his well-respected and oft-cited contribution to the field of Internet law and policy, that cyberspace had the potential to become the antithesis of freedom: "[t]he word itself speaks not of freedom but of control."[28] He was right, as has been made amply clear by the *Joint Comments of Internet Engineers, Pioneers, and Technologists* and these Reply Comments. When the interests of the private sector – in this case, ISPs – have fallen too far out of alignment with the public interest, it is the duty of the government to restore that freedom, and, in this case, competition and openness, through targeted intervention. This is what the *2015 Open Internet Order* achieved, and this is what the NRPM would undo, for the sole benefits of ISPs.

## IV. THE NPRM IS RIFE WITH RHETORICAL FALLACIES AND ALTERNATIVE FACTS

We now provide a sample of rhetorical fallacies and alternative facts contained in the NPRM. This sampling is by no means exhaustive – there are too many of them to cover comprehensively and

[28] Lawrence Lessig, *Code and Other Laws of Cyberspace* (1999), p.5; *see also* Lawrence Lessig, "The Laws of Cyberspace" (paper presented at the Taiwan Net '98 Conference, Taipei, March 1998).

remain succinct – yet, this sample is representative. We italicize and indent each citation, ordered by paragraph number in descending order.

*Para. 3: But two years ago, the FCC changed course. It decided to apply utility-style regulation to the Internet.*

This statement, repeated throughout the NPRM, is factually baseless. Nothing in the *2015 Open Internet Order* subjects the Internet to utility-style regulation. In fact, at no point in the NPRM does the Commission in any way substantiate its claim that the *2015 Open Internet Order* is a utility-style regulation. In part II of these Reply Comments, we explained in detail the difference between utility-style regulation and classification of internet transport services as Title II telecommunications services. Throughout the NPRM, the use of the expression "utility-style regulation" is simply a misleading label. Repeating this label might influence the public's view of the *2015 Open Internet Order*, but it does not make it true.

*Para. 3: This decision [to reclassify as Title II communication service] represented a massive and unprecedented shift in favor of government control of the Internet.*

Not only does the NPRM never provide any factual basis for this statement, but it is the exact opposite of the truth. The *2015 Open Internet Order* is simply an anti-discrimination act for cyberspace for purposes of common carriage regulation of the retail market. It tells ISPs that offer their conduit function to end-users that they cannot discriminate against content they do not like or against edge-providers who are unable or unwilling to pay them a toll for service costs end-users have already covered. The *2015 Open Internet Order* imposes new rules that prevent the ISPs from discriminating at the top-end of this two-sided market. Because the economic concept of a two-sided market can be difficult to comprehend (a fact the ISPs and the current Commission exploit in their public relations campaigns to limit internet freedom under the guise of restoring it), we now offer a metaphor to show the only freedom the *2015 Open Internet Order* removes is that of ISPs to unfairly discriminate and the *2015 Open Internet Order* is by no means a government takeover of the Internet.

Imagine a tenant renting a house. If the tenant can only afford a small amount for rent, he will rent a small house. Only so many people can fit into the house, so when the tenant has a house party, he can only invite so many people. If the tenant is wealthier, or simply decides that having a large house is

a priority for his lifestyle, he will allocate more money to rent and rent a larger house. When he has a house party, he can invite more people because more people will fit within the house he has rented.

Commercial cyberspace works the same way and always has. Broadband ISPs apply multi-level pricing at the subscriber level in the form of price discrimination through different levels of bandwidth. A subscriber who is poor or does not need much bandwidth will pay less than a wealthier subscriber or one that values having higher bandwidth. A subscriber who pays more, for example, a gamer or a family that needs to sustain four people streaming Netflix, Hulu, or YouTube on different devices at the same time, can invite more data into his house just like a tenant who pays more rent for a larger house can invite more people to a house party.

Let us now imagine that our imaginary tenant's landlord posts a bouncer outside the house, and, on the day the tenant decides to use the house for a party, the landlord decides to only let guests inside the house if they pay the landlord a $5.00 cover charge. Or, the landlord decides to only admit guests wearing red shirts because the landlord's parent company manufactures red shirts. The landlord wants to ensure the tenant can only invite friends who wear red so the landlord's parent company will sell more red shirts.

This is not fair because the tenant has already paid to rent the house. If he paid less rent for a small house, then he can invite only a few friends, and if he paid more rent for a larger house, then he can invite more guests. But he has already paid to invite friends, and as long as the friends don't do anything illegal in the house, the landlord cannot discriminate against some of those friends by preventing them from entering the dwelling, and certainly cannot charge them an admission fee either. The *2015 Open Internet Order* prevents exactly this kind of unfair discrimination on the Internet. It prohibits last-mile ISPs from charging extra money to the edge-providers who create the content end-users invite into their homes, or from blocking them, or a combination of both.

The *2015 Open Internet Order* does not grant the government control of the Internet. Nor does it restrict freedom, except for an ISP's "freedom" to discriminate against content it does not like because perhaps the content competes with content provided by the ISP's parent company or the content provider is unwilling or unable to pay money for what the ISP's client, the end-user, has already paid for. The *2015 Open Internet Order* is a non-discrimination Act for cyberspace. It tells ISPs that where they have chosen to market themselves as a neutral conduit to the open Internet, then they do have to act as a neutral conduit to the open Internet. The NPRM, in contrast, would restore freedom for ISPs... to unfairly discriminate and restrict Internet openness.

*Para. 4: The Commission's Title II Order has put at risk online investment and innovation, threatening the very open Internet it purported to preserve. Investment in broadband networks declined. Internet service providers have pulled back on plans to deploy new and upgraded infrastructure and services to consumers. This is particularly true of the smallest Internet service providers that serve consumers in rural, low-income, and other underserved communities.*

This is one of many unsubstantiated claims in the NPRM. The FCC provides no evidence for this statement. The factual record, in fact, shows quite the opposite.[29] Since the FCC collects very precise data on these things, surely, if it had data supporting its claim, it would show it. The claim is simply false.

*Para. 5: Today, we take a much-needed first step toward returning to the successful bipartisan framework that created the free and open Internet and, for almost twenty years, saw it flourish.*

The free and open Internet was not created by politicians but by visionary engineers and entrepreneurs.[30] In 2002, the FCC made a radical departure in its regulatory framework which enabled large ISPs to contest that freedom and openness as evidenced by the many examples of unfair discrimination and violations of Internet freedom and openness that took place between 2002 and 2015.[31]

In part II, these Reply Comments detail how the *2002 Cable Modem Declaratory Ruling* was a sudden departure from well-established law. Here it is important to note the NPRM's declaration of returning to "*the successful bipartisan framework*" is simply revisionist history. The NPRM takes policymakers further down the path of misrepresenting history when it declares its intent is to, "*end the utility-style regulatory approach that gives government control of the Internet,*" or that the FCC's

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[29] *See Comments of Free Press*, WC Docket No. 17-108, pp. 86-208

[30] See generally *Joint Comments of Internet Engineers, Pioneers, and Technologists on the Technical Flaws in the FCC's Notice of Proposed Rule-making and the Need for the Light-Touch, Bright-Line Rules from the Open Internet Order*, WC Docket No. 17-108; Janet Abbate, *Inventing the Internet* (Cambridge, MA: MIT Press, 1999); Fred Turner, *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network,and the Rise of Digital Utopianism* (Chicago: University of Chicago Press, 2006).

[31] For documented examples of unfair discrimination by ISPs *see* pages 34 through 40 In re *Restoring Internet Freedom*, WC Docket No. 17-108, *Joint Comments of Internet Engineers, Pioneers, and Technologists on the Technical Flaws in the FCC's Notice of Proposed Rule-making and the Need for the Light -Touch, Bright-Line Rules from the Open Internet Order*

"*actions today continue our critical work to promote ... to brighten the future of innovation both within networks and at their edge*" (Para. 5). These statements are simply not credible. As we explained in Section III of these Reply Comments, the NPRM would hinder innovation at the edges by allowing more ISP control over content and applications at the level of the transmission of data, which is handled by the ISPs.

*Para. 13 - In 2004, then FCC-Chairman Michael Powell announced four principles for Internet freedom to further ensure that the Internet would remain a place for free and open innovation with minimal regulation. These four "Internet freedoms" include the freedom to access lawful content, the freedom to use applications, the freedom to attach personal devices to the network, and the freedom to obtain service plan information.*

Throughout the NPRM, the Commission invokes Chairman Powell's announcement of the "four Internet freedoms" in order to support the reclassification effort. We agree with the Commission that these four freedoms are essential. While they were unenforceable as a policy statement, it is the *2015 Open Internet Order* that enshrined these freedoms into law. In contrast, the NPRM, if implemented, would actually take away from Internet users the freedoms it purports to protect. The first two freedoms, in particular, are guaranteed under the *2015 Open Internet Order*.

- "Freedom to access lawful content" is currently protected because the Order requires ISPs to be neutral in terms of content and not prioritize some content over other content. Revoking this content neutrality requirement, as the Commission proposes in the NPRM, would shift the power to decide what content can be accessed from internet users into the hands of ISPs. The first Internet freedom would, therefore, be taken away under the Commission's current proposal.

- "Freedom to access applications" is currently protected because the Order requires that ISPs be neutral in terms of applications and not block particular applications. Prior to the *2015 Open Internet Order*, ISPs repeatedly blocked applications.[32] Repealing the neutrality rules through the Commission's proposal would allow ISPs to once again discriminate between applications

[32] See generally *Joint Comments of Internet Engineers, Pioneers, and Technologists on the Technical Flaws in the FCC's Notice of Proposed Rule-making and the Need for the Light -Touch, Bright-Line Rules from the Open Internet Order*; Timothy Karr, "Net Neutrality Violations: A Brief History," *Free Press* (April 25, 2017)

and violate Chairman Powell's second Internet freedom. It would also clearly hinder innovation by allowing ISPs to solely determine which applications can be used over the Internet, rather than letting internet users - and the market - decide.

It is the *2015 Open Internet Order* that turned Chairman Powell's policy statement into an enforceable rule. To classify BIAS as an information service would in contrast render any FCC rule related to non-discrimination unenforceable, as the Courts have made clear.[33] This NPRM rhetoric of "restoring Internet freedom" disingenuously masks the reality that certain aspects of the four Internet freedoms are not legally enforceable without classification of BIAS as a telecommunications service.

*- HEADING, III. ENDING PUBLIC-UTILITY REGULATION OF THE INTERNET*

If the goal of the Commission is to "end public-utility regulation of the Internet", then no change in existing regulations is necessary (*see* Section II of these Reply Comments). The *2015 Open Internet Order* does not impose public-utility style regulation. Suggesting that it does is simply a deliberate misrepresentation.

*Para. 23 - Between enactment of the Telecommunications Act and the 2015 adoption of the Title II Order, the free and open Internet flourished … and consumers were able to enjoy all that the Internet had to offer..*

The NPRM seriously misrepresents the consumer's experience prior to the *2015 Open Internet Order*. It ignores the well-documented instances when ISPs abused their power and blocked lawful content and applications for no reason other than to serve their own business interests. These disruptions of the free market are noted numerous times by comments on the NPRM.[34] Some of the ISPs have even publicly stated that but for net neutrality regulations, they would experiment further with monetizing content and applications flowing across their networks.[35]

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[33] *Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014)

[34] *See e.g. Joint Comments of Internet Engineers, Pioneers, and Technologists on the Technical Flaws in the FCC's Notice of Proposed Rule-making and the Need for the Light-Touch, Bright-Line Rules from the Open Internet Order*, WC Docket No. 17-108, p.33-40

[35] Consider for example Verizon's statement: "the Commission should allow flexibility for providers to negotiate differentiated arrangements or experiment with different service models if they see a customer benefit in doing so, even as customers can continue to go anywhere using their selected tier for Internet

*Para. 29 – In short, broadband Internet users are paying for the access to information "with no knowledge of the physical location of the server where that information resides." We believe that consumers want and pay for these functionalities that go beyond mere transmission—and that they have come to expect them as part and parcel of broadband Internet access service. We seek comment on our analysis.*

The Commission should pay particular attention to the *Joint Comments of Internet Engineers, Pioneers, and Technologists on the Technical Flaws in the FCC's Notice of Proposed Rule-making and the Need for the Light -Touch, Bright-Line Rules from the Open Internet Order* on this point. These *Joint Comments* makes clear, both conceptually from the viewpoint of end users and technologically as to how the Internet functions, that ISPs are providing a Title II telecommunications service.[36]

We particularly want to emphasize a point made in the *Joint Comments*. Consumers do indeed want and pay for these functionalities, called "routing." However, contrary to the NPRM's analysis, these routing functionalities do not make the transmission service an information service. These routing functionalities are an integral part of the transmission service without which transmission would not be possible because the data is distributed through nodes that are chosen not by the user, but by the operator of the transmission service according to what is most technically efficient.

This is no different than the service provided by the traditional Public Switched Telephone Network (PSTN), which is a Title II common-carriage service. Prior to voice-over-IP, a user in Bloomington, Indiana wanting to call his mother in Los Angeles, California had no knowledge of the physical location of the telephone company switches and did not need knowledge of the physical location of the end-user. All the user needed to provide the long distance carrier was a phone number (in parlance of today, an IP address), and the phone company would route the call in the most efficient way possible. This routing was a service that consumers indeed wanted and paid for. These functionalities, interpretation of the routing table by telephone operators (later by automated switches) and actual switching, did not make the PSTN transmission service an information service anymore than

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access service and edge providers can rely on that service to reach their customers without the need for negotiating with broadband providers for access to end-users." *COMMENTS OF VERIZON AND VERIZON WIRELESS*, GN Docket No. 10-127; GN Docket No. 14-28.

[36] *Joint Comments of Internet Engineers, Pioneers, and Technologists on the Technical Flaws in the FCC's Notice of Proposed Rule-making and the Need for the Light-Touch, Bright-Line Rules from the Open Internet Order*, WC Docket No. 17-108, pp. 18-30.

interpretation of the DNS and actual routing by ISPs make the operation of the Internet an information service.

The fact that Internet users have "no knowledge of the physical location of the server where that information resides" is no more relevant for the internet than it was for the PSTN. The same holds true for the US Postal Service, another common carrier.

*Para. 30 - We believe that consumers want and pay for these functionalities that go beyond mere transmission.*

The *Joint Comments of Internet Engineers, Pioneers, and Technologists* have demonstrated that the services referred to by the Commission in this paragraph are not information services.[37]

The NPRM relies upon Commission "beliefs" rather than facts to support its analysis. The Administrative Procedures Act (APA) requires the Commission to make rational decisions based upon the record. It is not enough for the Commission to simply rely upon its own ideology to reach its pre-determined conclusion that ISP's provide an information service rather than a telecommunications service. The comments filed in this proceeding establish a factual record that supports maintaining the Title II classification for ISPs. There is no equivalent factual record supporting ISP's as Title I information services.

*Para. 30 - We seek comment on other ways in which Internet service providers change the form or content of information to facilitate a broadband Internet user's experience on line.*

This appears to be the Commission's cry for help in cobbling together more arguments to support its contention that ISPs add value to the data while transporting it. If ISPs are so clearly providing an information service, one would think the NPRM could easily list changes in the form of content of information based on its own knowledge of Internet technology. The NPRM's call for assistance is evidence the Commission is busily seeking alternative facts, as if to reverse engineer the meaning of information service to meet its pre-determined ideological goal.

[37] *Id.*

*Para. 36 -We seek comment on this analysis and on any other relevant facts regarding whether broadband Internet users receive the capabilities of an information service or the mere transmission between points of a user's choosing of a telecommunications service*.

ISPs have themselves admitted that they provide a transmission service. See for example Verizon's terms of service, as documented by the Center for Democracy and Technology in 2011:

> Verizon assumes no responsibility for . . . any Content . . . and . . . Verizon does not endorse any advice or opinion contained therein.[38]

> [T]he Internet service provider performs a pure transmission or "conduit" function ... This function is analogous to the role played by common carriers in transmitting information selected and controlled by others. Traditionally, this passive role of conduit for the expression of others has not created any duties or liabilities under the copyright laws.[39]

## V. CONCLUSION

For more than a decade, the Commission struggled to enact net neutrality principles under a Title I regulatory regime, net neutrality principles that even the ISPs now profess to support. Despite their best efforts, previous Commissions could not convince the courts they had such authority under Title I. The *2015 Open Internet Order* corrected past ill-advised departures from long-established policies and put the widely-supported net neutrality rules on a firm jurisdictional footing under Title II. Years of chaos and uncertainty were ended.

Now this NPRM seeks to return the Commission to those failed policies of the past. For what purpose? Other than an unsubstantiated claim that broadband infrastructure investment has declined since adoption of the *2015 Open Internet Order*, the NPRM fails to identify any problem that must be

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[38] See Verizon Online Terms of Service 12(5), (visited August 12, 2014), http://my.verizon.com/central/vzc.portal?_nfpb=true&_pageLabel=vzc_help_policies&id=TOS, cited as "See Verizon Online Terms of Service 11(5), (Dec. 31, 2011)," Center for Democracy & Technology, *Brief Amici Curiae in support of appellee*, Filed inVerizon v. FCC, 740 F.3d 623 (D.C. Cir. 2014) (No. 11-1355) (2012) http://my.verizon.com/central/vzc.portal?_nfpb=true&_pageLabel=vzc_help_policies&id=TOS"

[39] Brief for Appellant at 23, Recording Indus. Ass'n of Am. v. Verizon Internet Serv., 351 F.3d. 1229 (D.C. Cir. 2003) (Nos. 03-7015 & 03-7053), as cited by Center for Democracy & Technology, *Brief Amici Curiae in support of appellee*, Filed in Verizon v. FCC, 740 F.3d 623 (D.C. Cir. 2014) (No. 11-1355) (2012), p.12.

solved. It is long on political rhetoric, distortions and misrepresentations, but short on sound legal and technical analysis. One can only conclude the Commission has established an ideological goal of deregulation for its own sake and is deliberately maneuvering itself into a position where it will have no legal basis to enforce Open Internet regulations.

However, no matter how loudly the Commission cries "wolf" about alleged reductions in Internet infrastructure investment, employs political spin with claims of restoring internet freedom and ending utility-style regulation, or mischaracterizes the technical operation of the internet, it cannot escape its statutory duty to properly classify ISPs as providing Title II telecommunications service.

This is not within the Commission's discretion. A careful reading of the statutes and past legal precedents clearly shows the Commission must classify ISPs as Title II telecommunications service providers based on the functionality of their service. The ISPs are transmitting information of the user's choosing between points specified by the user without changing the form or content of the information. They offer this service to the public for a fee. These technical and commercial functions put ISPs' service squarely within the definition of telecommunications service.

Rejecting this NPRM and continuing to enforce the *2015 Open Internet Order* will not only put the Commission on the right side of the law, it will foster the innovation, competitive free market, and Internet freedom this Commission claims to so deeply cherish. If these really are the true goals of the Commission, it can only succeed in achieving them through Title II.

Respectfully submitted,

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# APPENDIX

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC

GN Docket No. 14-28

In the Matter of

Protecting and Promoting the Open Internet

# The Telecom Act of 1996 *Requires* the FCC to Classify Commercial Internet Access as a Telecommunications Service


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Thousands of papers and comments have been written about what Open Internet policies would best serve the public interest, and thousands more have been written about whether better Open Internet policies could be supported by calling Internet access a telecommunications service under Title II of the Communications Act or an information service. Even the authors of this comment have written about these topics.[1][2][3] However, this particular comment will address neither of these topics. Instead, it will consider only whether or not commercial Internet access is or is not a telecommunications service under current law. Although many issues are delegated to the FCC as an expert agency, the FCC is still required to follow the laws passed by Congress and signed by the President, and the FCC's discretion has bounds. In this matter, we find that the Communications Act of 1934 as modified by the Telecommunications Act requires the FCC to define commercial Internet access as a telecommunications service. Opinions will differ as to whether this is a good or bad result for the future of the Internet, but this question is outside the scope of this comment.

## 1. Classification of "Telecommunications Services" is Based on Two Types of Functionality

There are two types of functionality relevant to classification of a service as a "telecommunications service" under the Communications Act of 1934, as amended by the Telecommunications Act of 1996. They are *technical functionality* and *commercial functionality*.

### 1.1 Technical Functionality

Title I, II, III, and VI services – as readily seen from the statutory definitions of telecommunications, broadcasting, cable, mobile, and information – differ by the technical functionality as to what is offered. Of relevance here, "telecommunications" is defined in terms of its technical functionality as "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received" (47 U.S.C. §153(43)). Whereas, "information service" is defined in terms of its technical functionality as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service" (47 U.S.C. §153(20)). Importantly, this definition of an information service has two components - technical functions that must exist as well as technical functions that are specifically excluded. Moreover, given these definitions, the FCC has interpreted telecommunications and information service to be mutually exclusive, based on their differences in technical functionality.[4]

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[1] J. M. Peha, "A 'Most Favored Nation' Approach to an Open Internet," Comments in the Matter of Protecting and Promoting the Open Internet, Federal Communications Commission GN Docket No. 14-28, July 15, 2014. http://users.ece.cmu.edu/~peha/Peha_Open_Internet_July_2014.pdf

[2] J. M. Peha, "The Benefits and Risks of Mandating Network Neutrality, and the Quest for a Balanced Policy," *Telecom Policy Research Conf.*, 2006, and *International Journal of Communication*, 2007. http://users.ece.cmu.edu/~peha/balanced_net_neutrality_policy.pdf

[3] B. A. Cherry, J. Mailland, "Towards Sustainable Network-Openness Obligations on Broadband in the U.S. : Surviving Providers' First Amendment Challenges," *Telecom Policy Research Conf.*, 2014. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2417758

[4] In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Report to Congress, 13 FCC Rcd 11501 (1998) ("*Universal Service Report*").

## 1.2 Commercial Functionality

Under the Act, "The term "telecommunications service" means the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public regardless of the facilities used" (47 U.S.C. §153(46)). Thus, a "telecommunications service" is defined in terms of *two* components of functionality – a technical functionality component and a commercial functionality component. First, a telecommunications service must offer the underlying technical functionality of "telecommunications". Second, a telecommunications service must offer this technical functionality through a specific commercial means: "for a fee directly to the public, or to such classes of users as to be effectively available directly to the public regardless of the facilities used." This commercial functionality component is the basis for distinguishing between common carriage and private carriage of telecommunications.[5] Importantly, commercial functionality of "telecommunications service" does not require the existence of monopoly or an assessment of market structure.

## 1.3 The FCC's Authority in Determining Commercial Functionality

When the technical functionality of telecommunications is provided, a further distinction is required based on commercial functionality, that is, whether telecommunications is provided on a common carriage or private carriage basis.

As explained in *NARUC I*,[6] "[w]hat appears to be essential to the quasi-public character implicit in the common carrier concept is that the carrier 'undertakes to carry for all people indifferently'" (525 F.2d at 641, footnote omitted). However, since both common carriers and private carriers may serve the same clientele, the distinction between them turns on the manner and terms by which they approach and deal with their customers.

> The cases make clear both that common carriers need not serve the whole public, and that private carriers may service a significant clientele, apart from the carrier himself. Since given private and common carriers may therefore be indistinguishable in terms of the clientele actually served, *it is difficult to envision a sensible line between them which does not turn on the manner and terms by which they approach and deal with their customers.* The common law requirement of holding oneself out to serve the public indiscriminately draws such a logical and sensible line between the two types of carriers" (*NARUC I,* 525 F.2d at 642, footnotes omitted, emphasis added).

Given the nature of this line-drawing between common and private carriers, *NARUC I* explains that commercial functionality is determined under the following scenarios.

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[5] Similarly, "mobile service" is composed of the underlying technical functionality defined in 47 U.S.C. §153(27), and section 332 differentiates between commercial mobile service and private mobile service.

[6] National Association of Regulatory Utility Commissioners v. FCC, 525 F.2d. 630 (D.C. Cir. 1976) ("*NARUC I*").

### 1.3.1 Nondiscretionary Classification

Classification of a telecommunications offering as common carriage or private carriage is based on assessment of how the service is offered. This is not a discretionary classification by the FCC.

> [*W]e reject those parts of the [FCC's] Orders which imply an unfettered discretion in the Commission to confer or not common carrier status on a given entity, depending upon the regulatory goals it seeks to achieve.* The common law definition of common carrier is sufficiently definite as not to admit of agency discretion in the classification of operating communications entities. A particular system is a common carrier by virtue of its functions, rather than because it is declared to be so (*NARUC I,* 525 F2d at 644, emphasis added, footnotes omitted).

### 1.3.2. Reclassification When Circumstances Change

The classification of the service can change over time as the manner and terms by which the carriers approach and deal with their customers change.

> We therefore conclude that nothing in the record indicates any significant likelihood that SMRS will hold themselves out indifferently to serve the user public. While it is undisputed that they would be permitted so to hold themselves out if they desired, that is not sufficient basis for imposing the burdens that go with common carrier status. *In so holding, we do not foreclose the possibility of future challenge to the Commission's classification, should the actual operations of SMRS appear to bring them within the common carrier definition* (*NARUC I,* 525 F2d at 643-644, emphasis added).

In fact, SMRS providers have since been reclassified as common carriers when they interconnect with the public switched network and give subscribers the capability to communicate to or receive communication from all other users on the public switched network (47 CFR §20.3).

### 1.3.3 Discretionary Classification

Even if the classification of the service as currently offered is private carriage, the FCC has the discretion to require that it be provided on a common carriage basis.

> The statements of the [FCC] Order can be made to square with the view of this court, if they are read to mean that the Commission could have treated SMRS as common carriers by imposing on them requirements which would have made them common carriers. Without asserting that this was the Commission's meaning, *it is clear that the Commission had discretion to require SMRS to serve all potential customers indifferently, thus making them common carriers within the meaning of the statute*" (F2d at 644 n. 76, emphasis added).

The *Computer Inquiry* framework, under which telephone companies were required to provide "basic service" to unaffiliated enhanced service providers on a common carriage basis, is an example of the FCC exercising such discretion.

## 2. Service Definitions

This section shows that if one applies the statutory definitions that are mandated by the Communications Act of 1934, as amended by the Telecommunications Act of 1996, commercial Internet access services as they are offered today are "telecommunications services", and not "information services". In this regard, the underlying technical functionality of IP Packet Transfer *is* telecommunications, and the commercial offering of Internet access service *is* a telecommunications service. Indeed, modern Internet access services fit the definition of telecommunications service established by Congress at least as well as commercial telephone services based on traditional circuit-switched technology, if not better. Moreover, legally, this classification is not discretionary.

### 2.1 IP Packet Transfer *is* Telecommunications

The fundamental service of the Internet is the transfer of one or more Internet Protocol (IP) packets from sender to intended recipient. In that process, a packet may pass through multiple networks, each of which is providing an IP Packet Transfer service of its own.

> ***A network provides IP Packet Transfer when it transfers IP packets from an ingress point that is receiving IP packets from the sender to an egress point that can send IP packets to the intended recipient.***

Restated here, below is the definition of "telecommunications".

> The term "telecommunications" means the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received.

It is clear that IP Packet Transfer means transmission of information that is of the packet sender's choosing, since the sender chooses what information to put in each packet. Moreover, it is the nature of IP Packet Transfer that the "form and content of the information" is precisely the same when an IP packet is sent by the sender as when that same packet is received by the recipient. These are both consistent with the above definition.

The one remaining issue, whether IP Packet Transfer occurs "between or among points specified by the user," is more complicated, although only slightly so. In each IP packet, the sender places the IP address of the packet's intended recipient. In some cases, the sender knows the recipient's IP address already, and in some cases the sender must first look up the desired IP address. Either way, communications is clearly to a point specified by the user sending the packet. For that portion of traffic for which the packet's sender and intended recipient are both customers of the same Internet access provider, that is the entire story. However, the Internet is a network of networks, and this is not always the case. Consider the case where an IP packet travels through several networks before reaching its destination. Collectively, these networks are sending the packet to the point specified by the sender. Individually, each network is sending the packet to an egress point that the network has determined is en route to the point specified by the user. This is essentially the same as long-distance calls in the traditional telephone network, where information travels through a local exchange carrier, and then a long-distance carrier, and then another local exchange carrier, and each of these carriers is still said to provide telecommunications. Thus, the same must be said of IP Packet Transfer.

Note that the analysis above assumed only that a network used IP from ingress to egress. As a result, this analysis is applicable to a wide range of networks. The Internet is based on a layered design. Underneath the IP layer, there may be a variety of physical infrastructure types, including fiberoptic cable, twisted pair copper, and wireless, as well as a variety of link-layer protocols, including DOCSIS, PPPoE, and LTE. On top of the IP layer, there can be a variety of transport protocols, including TCP, UDP, and home-grown proprietary protocols, as well as a variety of applications, including voice over IP (VOIP), web browsing, and video streaming. None of this influences our analysis. In today's Internet, the IP protocol is used to transfer information from ingress point to egress point, and IP Packet Transfer meets the legal definition of telecommunications regardless of the layers above or below. This includes when IP Packet Transfer is used for web browsing over a wired network and when it is used for video streaming over a wireless network.

### 2.2 A Commercial Internet Access Service *Is* a Telecommunications Service

Restated for convenience here is the definition of "telecommunications service".

> The term "telecommunications service" means the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.

By definition, a commercial Internet access service is offered "for a fee directly to the public, or to such classes of users as to be effectively available directly to the public." Internet access services vary somewhat from one Internet access provider to another, but the core offering is IP Packet Transfer which is telecommunications, as shown in Section 2.1. It is IP Packet Transfer that subscribers are seeking when they sign up for an ISP. Other functions of an Internet Access Provider are separable from the core offering, done only in support of the core offering, or both.

A prominent example is electronic mail. E-mail is an information service. At the time when the FCC and Supreme Court were making decisions about what constituted a telecommunications service in the wake of the 1996 Telecommunications Act, it may have seemed that e-mail was a crucial component of any Internet access service. E-mail was the original "killer app." Today, most Americans get their email from separate application service providers such as Google, Microsoft, and Yahoo, or from their employers or schools. While most Internet access providers do provide e-mail as well, it is clear that if they choose not to, the Internet Access Providers' customers will simply go elsewhere for this service. E-mail is not an essential part of a commercial Internet access service. It is easily separable, and whether an Internet access provider chooses to offer an e-mail service should not be considered when determining whether the Internet access service is a telecommunications or information service.

A similar but more subtle example is support for use of the Domain Name System (DNS). DNS is the global directory service that allows users to map human-readable names such as "www.fcc.gov" into IP addresses. These IP addresses can then be placed in the header of an IP packet, so that the IP Packet Transfer system can send the packet to its intended recipient. It is common for Internet access providers to place resolvers with caches in their network to facilitate this function for subscribers. IP Packet Transfer does work just as well without DNS, but it is less useful, just as a telephone system is less useful without a phone book. Here are three reasons why an Internet access

service does not become an information service simply because it includes DNS. First, it is separable. At the time of these FCC and Supreme Court decisions, it was probably difficult to imagine that an ISP could exist that did not play a role in helping its subscribers make DNS queries. However, we all know better today. DNS support can easily be separated from IP Packet Transfer, and today some Internet users turn to Application Service Providers (such as Google) for this service rather than to their Internet access provider. Second, even when offered by the Internet Access Provider, this DNS capability is clearly only there in support of the core function of IP Packet Transfer, which is telecommunications. According to the Telecommunications Act of 1996, even a function that might otherwise be an information service will not be considered as such if it is merely used "for the management, control, or operation of a telecommunications system or the management of a telecommunications service," which is clearly the case here. Third, for the purposes of categorization, there is little difference between DNS support offered by an Internet access Provider and the 411 directory service offered by many providers of telephone service. Both allow a user to discover how to reach another party. Both are extraneous but useful conveniences offered to supplement a telecommunications service. No one argued that telephone companies were not providing a telecommunications service because they offered 411. Thus, DNS support should not be considered when determining whether commercial Internet access providers offer a telecommunications service or an information service.

Internet access providers also typically assign IP addresses to their customers, either on a static or dynamic basis. This process is important because it makes it unlikely that two end points will ever adopt the same address, a situation that would cause problems for both the network and the end users. This is similar to the assignment of telephone numbers in the telephone network. Most telephone users get a new telephone number by requesting it from their telephone provider. In some cases, users ask their new telephone provider to determine whether the user can regain rights to a phone number the user had once before with a previous provider, but this still requires coordination with the new phone company. Static IP addresses could be assigned in a similar manner, with Internet access providers assigning addresses when service begins. For users who want their IP addresses assigned on a dynamic basis, there is a difference in that they (or their devices) typically learn about the assignment from a server operated by the Internet access provider using a protocol called DHCP, rather than some slow out-of-band communications such as when an employee of the telephone company tells a new customer her new phone number in a phone conversation. This difference is not consequential; other systems that offer telecommunications services also operate servers that provide important information dynamically in a similar manner. For example, a cell phone can request information from nearby towers about geographic location, or whether a phone call through those towers would incur roaming charges. Moreover, once again, management of IP addresses and making assignment information available via DHCP is merely information management in support of a telecommunications service, namely IP Packet Transfer, just as management of telephone numbers is.

### 2.3 A Commercial Internet Access Service *Is Not* an Information Service

Finally, restated here is the definition of "information service":

> The term "information service" means the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.

In IP Packet Transfer, packets are moved from sender to recipient without any change in format or content, and this can be done without offering any of the things that the Telecommunication Act of 1996 says must be part of an information service. Merely transferring a packet to its intended recipient does not by itself involve generating, acquiring, transforming, processing, retrieving, utilizing, or making available information. Of course, it is possible to make use of IP Packet Transfer to acquire information or to make information available, just as it is possible to make use of telephone calls to acquire information or make information available. For example, services have emerged whereby telephone users can call a given information provider to hear prerecorded messages with anything from sports scores to daily prayers. This does not change the fact that a commercial Internet access service and a commercial telephone service are both telecommunications services according to the Telecommunications Act of 1996. IP Packet Transfer involves storage only in the sense that each packet can be queued at any router until it is the packet's turn to be transmitted by that router. However, this ephemeral storage of a packet while in transit is not a storage service. Indeed, users would much prefer that their packets spend as little time as possible in buffers waiting to be transmitted. It cannot reasonably be said that Internet access providers are providing the service of storing packets any more than the Department of Motor Vehicles (DMV) is providing the service of storing humans merely because there are sometimes humans at the DMV waiting to be served.

There are some functions that are common if not required in a commercial Internet Access Provider that do involve "generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information." In addition to those already described in Section 2.2, commercial Internet access providers may want information systems for account management and billing, for configuration management, for the monitoring of failures and other state information, and to keep track of which addresses are reachable through each of the interconnected neighboring networks. All of these fall within the exception of "use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service" as explicitly defined in the 1996 Telecommunications Act. They are also not very different from functions in the telephone system, and the existence of these functions did not make telephony an information service.

Many Internet Access Providers also provide true information services as defined in the Telecommunications Act of 1996 merely to supplement their telecommunications service, but not as an integral part of that telecommunications service. Examples include e-mail and news sites, both of which are easily separable from Internet access. These companies may also lease customer premises equipment (CPE), or sell t-shirts. None of this matters when determining whether commercial Internet access services are telecommunications or information services.

## 3. Conclusion

Under the statutory definitions of the Communications Act of 1934, as amended by the Telecommunications Act of 1996, commercial Internet access service *is* a telecommunications service. It satisfies the two components of functionality – the technical functionality of telecommunications, and the commercial functionality of common carriage. This applies to all commercial Internet access services that employ IP Packet Transfer, which includes both wireless and wired networks. Moreover, having satisfied these two forms of functionality, classification of commercial Internet access service as a telecommunications service is legally required and not a matter of FCC discretion. Finally, even if there was dispute as to whether the commercial functionality component is satisfied, the FCC does have the discretion to require provision on a common carriage basis.

Although the law requires the FCC to consider commercial Internet access service as a telecommunications service, the Telecommunications Act of 1996 does provide the FCC the authority to forbear from the enforcement of certain regulations and provisions of the Communications Act of 1934. In contrast to the determination of service classification as a telecommunications service, the FCC's exercise of such forbearance power does require assessment of competitive market conditions. Whether the FCC should impose regulations or forbear is outside the scope of this comment.